

REMARKS

Claims 1-21 are pending in the application.

Independent claims 1, 8, and 15 are currently amended to more clearly describe a "computer-implemented" method and a "computer system" in light of recent case law. Claim 22 is canceled. Applicants respectfully submit that no new matter is added to currently amended claims 1, 8, and 15.

In anticipation of Appeal, Applicants respectfully submit that entry of the currently amended claims above is proper because the currently amended claims will place the application in condition for allowance or in better form for Appeal.

Claims 1-22 stand rejected under 35 U.S.C. §102(e) as anticipated by U.S. Patent No. 7,098,896 to Kushler et al., hereinafter, Kushler.

Applicants respectfully traverse the rejection based on the following discussion.

I. The 35 U.S.C. 102(e) Rejection over Kushler

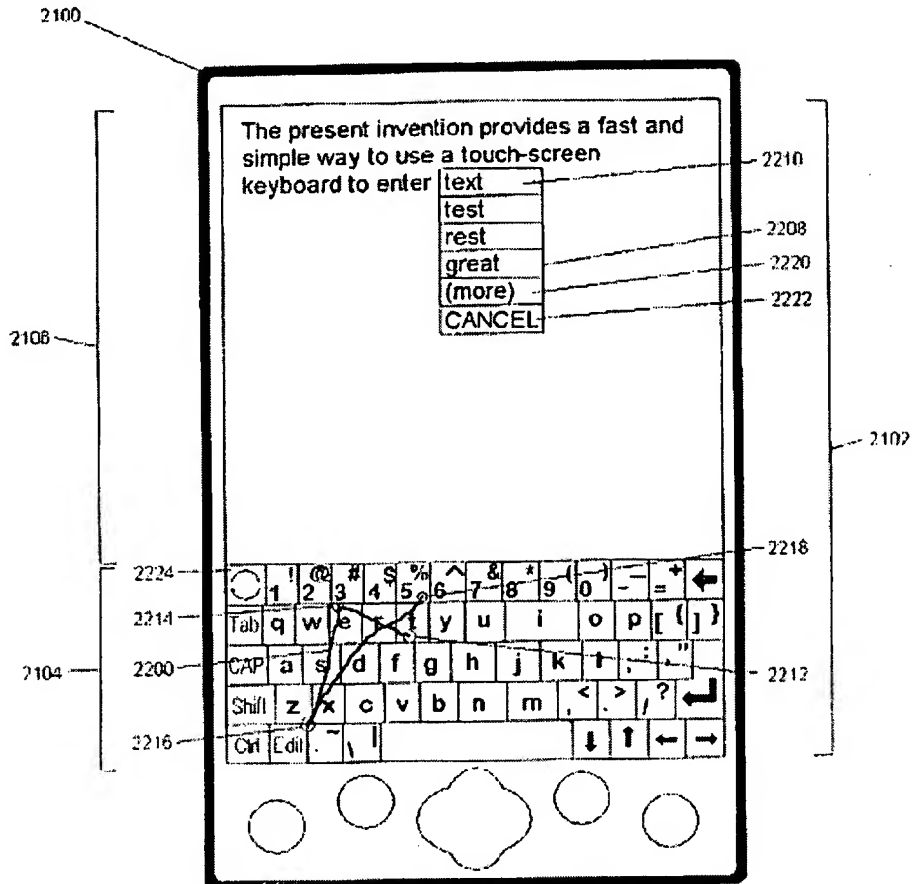
A. The Kushler Disclosure

[0001] It is a fact that Kushler discloses, "The system of the present invention allows the user to input a word of text without having to set the stylus down on the screen to contact an intended letter and then lift the stylus from the screen again before contacting the next letter--i.e., without having to "tap" each letter. This enables the user to input text much more quickly, since the extraneous movements of lifting and setting down the stylus need not be performed, and since maintaining contact between the stylus and the screen makes it easier in general to maintain more precise control over the location of contact by helping to stabilize the relationship between the stylus and the screen." (col. 7, line 61 to col.8, line 4).

[0002] It is a fact that Kushler discloses, "Text is generated by contacting keyboard 2104 at or near the key associated with the first letter of the word being input, and tracing out a continuous pattern that passes through or near each letter of the word in sequence, and breaking contact with the touch-screen when the last letter of the word is reached. FIG. 2B shows the same schematic view of the computer 2100, where the path of a representative input pattern 2200

is shown superimposed on the displayed keyboard 2104." (col. 24, lines 26-34).

[0003] It is a fact that FIG. 2B of Kushler discloses,



[0004] It is a fact that Kushler discloses, "In this example [i.e., FIG. 2B], the user has attempted to enter the word "text," and the system has successfully matched the word "text" as the most likely candidate word so that it is displayed in a default word choice location 2210 in selection list 2208. The path of an input pattern, as entered by a user using a touch device, such as a stylus pen, starts at an initial contact point 2212, which location is received by the processor and recorded by an input pattern analysis component that is being executed by the processor as the PEN_DOWN inflection point for the input pattern. The user moves the stylus so that the path then moves first to the key associated with the letter "e," then turns sharply to move toward the

key associated with the letter "x," creating an ANGLE_THRESHOLD inflection point that is recognized by the input pattern analysis component at location 2214. Then, in the vicinity of (though not on) the key associated with the letter "x," the path turns sharply back up toward the key associated with the letter "t," creating a second ANGLE_THRESHOLD inflection point that is recognized by the input pattern analysis component at location 2216. Finally, the stylus is lifted from the touch-screen at location 2218, which is recorded by the input pattern analysis component as a PEN_UP inflection point for the input pattern." (col. 24, lines 40-63).

[0005] It is a fact that Kushler discloses, "In order to avoid creating "artificial" inflection points where they were unlikely to have existed in the original input pattern, a smoothing process is first applied to the created input pattern 2402 [of FIG. 2D] to avoid the creation of spurious ANGLE_THRESHOLD inflection points at keys where in fact the path of the input pattern changes direction only slightly. FIG. 2E shows a smoothed input pattern 2500 created by applying a smoothing process to the initial simulated input pattern 2402 of FIG. 2D. The smoothed input pattern 2500 is then processed by the system in the same manner as an input pattern traced out by the user, resulting in the identification of a PEN_DOWN inflection point at location 2502; a ROW_CHANGE inflection point at location 2504; an ANGLE_THRESHOLD inflection point at location 2506; and a PEN_UP inflection point at location 2508." (col. 26, 16-31).

[0006] It is a fact that FIG. 2D of Kushler discloses,

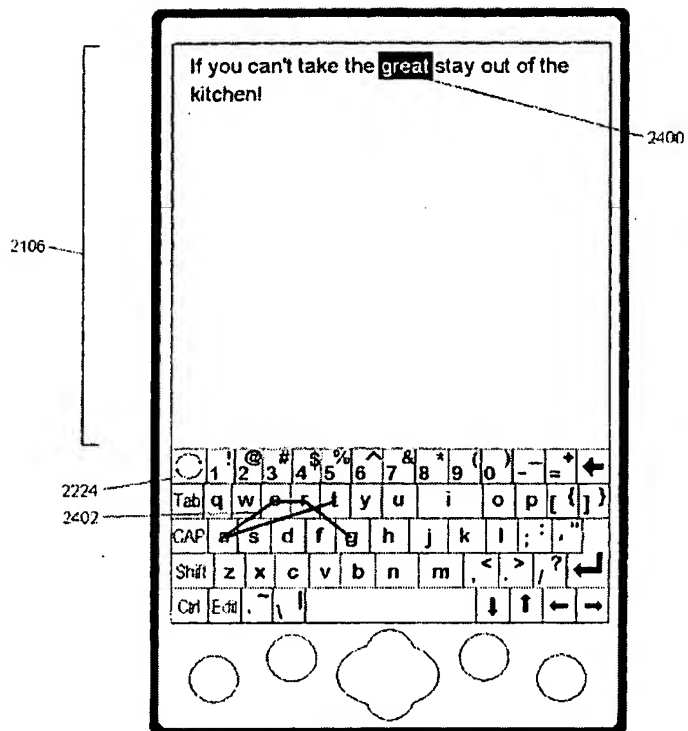


Figure 2D

[0007] It is a fact that FIG. 2E of Kushler discloses,

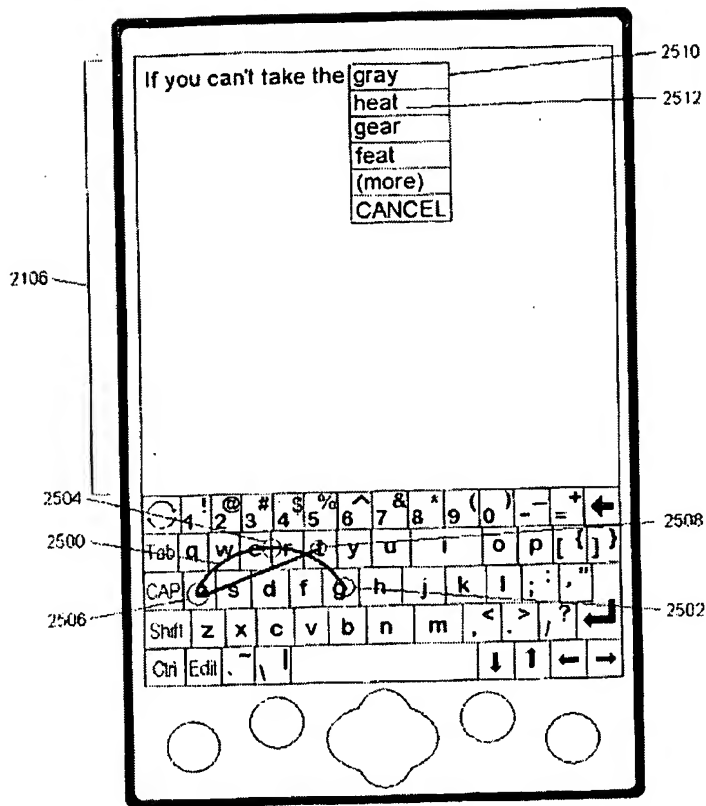


Figure 2E

[0008] It is a fact that Kushler discloses, "In another aspect, the input pattern analysis component identifies up to five different types of inflection points in the input pattern: PEN_DOWN, the location where the stylus first makes contact with the touch-screen; PEN_UP, the location where the stylus breaks contact with the touch-screen; ANGLE_THRESHOLD, a location where the sum of the absolute magnitudes of the x and y second order differences reaches a local maximum, having exceeded a pre-determined minimum threshold; ROW_CHANGE, a location between two successive inflection points of other types where the y-coordinate reaches a maximum (or minimum) value that occurs in a row of the keyboard positioned above (or below) the row(s) in which the two successive inflection points are located; and TAP, a location where the stylus is more or less immediately lifted after

contacting the screen, corresponding to a case of a one-letter word or the selection of a single function key." (col. 9, line 62 to col. 10, line 11).

[0009] It is a fact that Kushler discloses, "The method of the present invention is distinguished by the fact that a word is input using one continuous motion in contacting the screen, significantly reducing the number of controlled movements that must be executed to input each word. This significantly increases text entry speed. The present invention uses word-level analysis to match the input pattern traced out on the keyboard with the most likely word or words in the system's database. The user is presented with a list of the identified matching words, and can either accept the default choice (the word identified by the system as being the most likely match), or select one of the alternate word choices or request the system to display further potentially matching words if the desired word does not appear in the list." (col. 6, lines 40-53).

B. Argument

[0010] It is a fact that the Final Office Action, mailed 12/16/2009, states,

"5. Applicant's argument relating to art rejection is not persuasive.

a. Applicants argue:

[0009] Kushler discloses that "[t]he system of the present invention allows the user to input a word of text without having to set the stylus down on the screen to contact an intended letter and then lift the stylus from the screen again before contacting the next letter--i.e., without having to "tap" each letter."

It is unclear what applicant mean by this. Does this mean Kushler enter the letters without "tapping" the letters. Is it possible to enter the letters without "tapping" each letters? If there is a touch screen having a virtual keyboard, there must be "TAPPING" process to input each letter using the virtual keyboard." (Final Office Action, page 2, section 5, subsection a).

[0011] Applicants respectfully reply, "Yes, it is possible to enter letters without tapping on a virtual keyboard and this process is clearly described by Kushler," as described by Applicants, immediately below.

[0012] Applicants respectfully submit that when referring to FIG. 2B of Kushler, above, the user, who wishes to enter the word, "text", first places his stylus on the initial letter key, "t",

of the virtual keyboard, i.e., the point, 2212 of FIG. 2B. The user then slides his stylus along the surface of the virtual keyboard, where the virtual keyboard is a flat smooth screen, without lifting the stylus from the flat smooth screen, to the point 2218 of FIG. 2B, which is located on the letter key, "e", of the virtual keyboard. The user then slides his stylus from the point 2212, corresponding to the letter key, "e", to the point 2216, which is near, but not on, the desired letter key, "x", of the virtual keyboard without lifting the stylus from flat smooth screen. The user then slides his stylus from point 2216, without lifting the stylus, to the point 2218, which is near the desired last letter, "t", of the desired word, "text", and then finally lifts the stylus from the surface of the virtual keyboard, to indicate that point 2218 corresponds to a point on or near the last letter of the desired word. (emphases added). That is, Kushler describes "sliding" from letter to letter to input individual letters. Kushler describes this "sliding" by *inter alia* the phrases, "continuous stroke" (Title), "continuous contact" (e.g., Abstract, third sentence), and "input pattern" (Abstract, e.g., fourth sentence).

[0013] In fact, Kushler describes the above process more compactly when he discloses, "Text is generated by contacting keyboard 2104 at or near the key associated with the first letter of the word being input, and tracing out a continuous pattern that passes through or near each letter of the word in sequence, and breaking contact with the touch-screen when the last letter of the word is reached. FIG. 2B shows the same schematic view of the computer 2100, where the path of a representative input pattern 2200 is shown superimposed on the displayed keyboard 2104." (col. 24, lines 26-34). (emphasis added).

[0014] In fact, Kushler describes the above process in greater detail when he discloses, "In this example [i.e., FIG. 2B], the user has attempted to enter the word "text," and the system has successfully matched the word "text" as the most likely candidate word so that it is displayed in a default word choice location 2210 in selection list 2208. The path of an input pattern, as entered by a user using a touch device, such as a stylus pen, starts at an initial contact point 2212, which location is received by the processor and recorded by an input pattern analysis component that is being executed by the processor as the PEN_DOWN inflection point for the input pattern. The user moves the stylus so that the path then moves first to the key associated with the letter "e," then turns sharply to move toward the key associated with the letter "x," creating an

ANGLE_THRESHOLD inflection point that is recognized by the input pattern analysis component at location 2214. Then, in the vicinity of (though not on) the key associated with the letter "x," the path turns sharply back up toward the key associated with the letter "t," creating a second ANGLE_THRESHOLD inflection point that is recognized by the input pattern analysis component at location 2216. Finally, the stylus is lifted from the touch-screen at location 2218, which is recorded by the input pattern analysis component as a PEN_UP inflection point for the input pattern." (col. 24, lines 40-63). (emphases added).

[0015] Similarly, when the Final Action argues that Kushler must comprise "TAPPING" by citing, "... to enter either word [either 'feel' or 'fell'], the user would contact the touch-screen at or near the key associated with the letter "f," pass through or near the key associated with the letter "e," move the stylus to or near the key associated with the letter "l". ... (see: Col. 10, lines 32-38)" (Final Office Action, pages 2 and 3, section 5, subsection a), Applicants respectfully point out that the touch screen is initially contacted at or near the initial letter, "f", and does not lift from the touch screen until the final letter of the desired word, "l", i.e., "... move the stylus to or near the key associated with the letter "l", and lift the stylus from the screen." (col. 10, lines 32-38). (emphasis added). Hence, intermediate movements by the stylus between the initial contact, on or near the initial letter key (PEN_DOWN in Kushler's terminology; see, col. 9, lines 64-65) and the lift from the touch screen at the final letter (PEN_UP in Kushler's terminology; see, col. 9, lines 65-67) require that the stylus remain in contact with the touch screen.

[0016] When, however, the Final Action argues that Kushler discloses "TAPPING" by citing, "... the user proceeds to continue tapping the keyboard, then the sequence of taps (i.e., at least two tapped landing points as claimed invention) generates word objects ... the tap location letters concatenated in the sequence that corresponding keys are tapped (the "tap location word").....(See: Col. 20 lines 20-26)", Applicants respectfully point out that Kushler is disclosing a special tapping process, in which the tap location letters not analyzed to match the input pattern traced out on the keyboard with the most likely word or words in the system's database.

[0017] Kushler defines "TAP, a location where the stylus is more or less immediately

lifted after contacting the screen, corresponding to a case of a one-letter word or the selection of a single function key." (col. 10, lines 8-11). With regard to multiple sequential TAPs, Kushler discloses, "If however, the user proceeds to continue tapping the keyboard, then the sequence of taps generates a word object comprised of the tap location letters concatenated in the sequence that the corresponding keys are tapped (the "tap location word"). Following the second tap, this word composed of the tap location letter appears as the default word of choice in the word choice list. Selection of this word by the user (either by explicitly selecting it from the word choice list or by proceeding to trace out an input pattern to input a next word, thus selecting the tapped word by virtue of its being the default word choice) inserts the word into the output text." (col. 20, lines 20-31). That is, the tap location words of Kushler are not matched to other input patterns of other words from the system's database, but are inserted "as is" into the output text, whether correctly or incorrectly spelled.

[0018] According to Kushler, a user entering the tapped sequence of letters, for example, "U", "S", "P", "T", "O", followed by either selecting the default word "USPTO" or by proceeding to trace out an input pattern of a next word, would insert "USPTO" into the output text. Likewise, a user entering the tapped sequence of letters, for example, "U", "S", "P", "R", "O", followed by proceeding to trace out an input pattern of a next word, would insert "USPRO" into the output text. Kushler does not generate a list of possible words, associated with the entered word, for presentation to the user, when the entered word comprises a tapped sequence of letters, i.e., "a word object comprised of the tap location letters concatenated in the sequence that the corresponding keys are tapped (the "tap location word")." (col. 20, lines 21-24).

[0019] Because Kushler's invention "uses word-level analysis to match the input pattern traced out on the keyboard with the most likely word or words in the system's database" (col. 6, lines 45-47), a tapped sequence of letters is not analyzed to match with other words in the system's database. Hence, the tapped sequence of letters in Kushler produces only the default "word", which is identical to the tapped sequence; there is no matching with other most likely words.

[0020] Therefore, Kushler does not disclose, teach or suggest at least the present invention's features of: "comparing ... a geometric pattern formed by said sequence of at least

two tapped landing points ... to another geometric pattern formed by said sequence of correctly or incorrectly entered letters for each selected word of said all words of a lexicon having a number of letters equal to said number of correctly or incorrectly entered letters", as recited by independent claim 1, because Kushler does not generate a geometric pattern, corresponding to a word in his system's database, by using a sequence of at least two tapped landing points. Instead, in Kushler, only a continuous stroke pattern corresponds to a word, and a sequence of taps, lacking this continuous stroke pattern, is not compared to other words.

[0021] Similarly, Kushler does not disclose, teach or suggest at least the present invention's features of: "determining ... a word from said selected all words of a lexicon ... by determining a shortest mean distance between said sequence of at least two tapped landing points ... and said sequence of correctly or incorrectly entered letters for said determined word", as recited in independent claim 8, because Kushler does not generate a mean distance, corresponding to a word in his system's database, by using a sequence of at least two tapped landing points. Instead, in Kushler, only a continuous stroke pattern corresponds to a word, and a sequence of taps, lacking this continuous stroke pattern, is not compared to other words.

[0022] Similarly, Kushler does not disclose, teach or suggest at least the present invention's features of: "a comparing module and calculator configured to compare a geometric pattern formed by said sequence of at least two tapped landing points ... to another geometric pattern formed by said sequence of correctly or incorrectly entered letters for each selected word of said all words of a lexicon having a number of letters equal to said number of correctly or incorrectly entered letters", as recited in independent claim 15, because Kushler does not generate a geometric pattern, corresponding to a word in his system's database, by using a sequence of at least two tapped landing points. Instead, in Kushler, only a continuous stroke pattern corresponds to a word, and a sequence of taps, lacking this continuous stroke pattern, is not compared to other words.

[0023] For at least the reasons outlined above, Applicants respectfully submit that Kushler does not disclose, teach or suggest at least the features of: "comparing ... a geometric pattern formed by said sequence of at least two tapped landing points ... to another geometric pattern formed by said sequence of correctly or incorrectly entered letters for each selected word

of said all words of a lexicon having a number of letters equal to said number of correctly or incorrectly entered letters", as recited by independent claim 1; "determining ... a word from said selected all words of a lexicon ... by determining a shortest mean distance between said sequence of at least two tapped landing points ... and said sequence of correctly or incorrectly entered letters for said determined word", as recited in independent claim 8; and "a comparing module and calculator configured to compare a geometric pattern formed by said sequence of at least two tapped landing points ... to another geometric pattern formed by said sequence of correctly or incorrectly entered letters for each selected word of said all words of a lexicon having a number of letters equal to said number of correctly or incorrectly entered letters", as recited in independent claim 15. Accordingly, Kushler fails to anticipate the subject matter of independent claims 1, 8, and 15, and dependent claims 2-7, 9-14, and 16-21 under 35 U.S.C. §102(e). The rejection of canceled claim 22 is moot. Withdrawal of the rejection of claims 1-22 under 35 U.S.C. §102(e) as anticipated by Kushler is respectfully solicited.

II. Formal Matters and Conclusion

Claims 1-21 are pending in the application.

Applicant respectfully submits that entry of currently amended claims 1, 8, and 15 is proper because the currently amended claims will either place the application in condition for allowance or in better form for appeal.

With respect to the rejection of the claims over the cited prior art, Applicants respectfully argue that the present claims are distinguishable over the prior art of record. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw the rejections to the claims.

In view of the foregoing, Applicants submit that claims 1-21, all the claims presently pending in the application, are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest time possible.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary.

Please charge any deficiencies and credit any overpayments to Attorney's Deposit Account Number 09-0441.

Respectfully submitted,

Dated: February 17, 2009

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